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Motions, Pleadings and Filings

Only the Westlaw citation is currently available.

United States District Court,
N.D. Illinois, Eastern Division.
LISLE CORPORATION, an Iowa corporation
Plaintiff,
v.
A.J. MANUFACTURING COMPANY, an Illinois Corporation Defendant.
No. 02 C 7024.

April 7, 2004.

Jon O. Nelson, Janice V. Mitrius, Matthew P. Becker, Phoebe K. Phillips, Banner & Witcoff, Ltd., Chicago, IL, for Plaintiff.

Thomas John Ring, Peter A. Tomaras, John Sheldon Letchinger, Gary R. Gillen, Jonathan A Harris, Wildman, Harrold, Allen & Dixon, James J. Conlon, James J. Conlon & Associates, Chicago, IL, for Defendant.

MEMORANDUM OPINION AND ORDER

COAR, J.

***1** Plaintiff Lisle Corporation ("Plaintiff" or "Lisle") filed suit against Defendant A.J. Manufacturing Company ("Defendant" or "A.J.") alleging that it infringed U.S. Patent No. 5,287,776 (the " '776 patent") by manufacturing and selling a specialized automotive inner tie rod tool. Following a jury trial, the jury returned a verdict in favor of the Plaintiff on February 12, 2004. The jury determined that the '776 patent was valid and that Defendant owed Plaintiff a 3 percent royalty on sales. This Court entered judgment of a 3 percent royalty, but it did not specify in the judgment the dollar amount that Defendant owed Plaintiff for sales. On February 25, 2004, the Court enjoined Defendant from producing or selling infringing tools for the life of the patent.

There are three issues presently before the Court: (1) Plaintiff's Motion to Amend the Judgment; (2) Defendant's Objections to Plaintiff's Bill of Costs; and (3) Defendant's Motion to Stay the Injunction pending appeal. The Court addresses these motions in the foregoing opinion.

I. PLAINTIFF'S MOTION TO AMEND JUDGMENT

Plaintiff seeks to amend the judgment to include a specific accounting of damages, prejudgment interest, and costs. As respects the issue of costs, the judgment need not be amended for Plaintiff to recover its costs. Plaintiff's Bill of Costs will be addressed below along with Defendant's Objections to the Bill of Costs. The other two issues addressed in Plaintiff's Motion, specific accounting of damages and prejudgment interest, will be resolved below.

A. Specific Accounting of Damages

According to the jury's verdict, Lisle is entitled to a reasonable royalty of 3 percent on sales of the infringing tools through the date of the injunction. The parties agree that the royalty amount from the Defendant's sales through January 12, 2004 is $25,760.48. Defendant's sales numbers from January 12, 2004 through the date of the injunction (February 25, 2004) are as yet undetermined. Consequently, the Plaintiff seeks an amended judgment that orders Defendant A.J. to pay damages in the amount of $25,760.48 for sales through January 12, 2004 plus a 3 percent royalty on sales in the period from January 12, 2004 to February 25, 2004.

The Court assumes that the reason Plaintiff seeks to amend the judgment to include the specific accounting of damages is to diminish uncertainty in the amount of the royalty. [FN1] While the amended judgment Plaintiff requests would not eliminate uncertainty, it limits the uncertainty to approximately six weeks of sales. The Court can perceive no mischief in granting this request. The judgment will be amended to include a damage amount of $25,760.48 plus a 3 percent royalty on sales in the period from January 12, 2004 to February 25, 2004.

> FN1. Plaintiff would be well-advised to specify the underlying reasons for its motions in the future.

B. Prejudgment Interest

Plaintiff's Motion also requests that the Court amend the judgment to include an award of prejudgment

interest. In patent cases, the Supreme Court has declared that "prejudgment interest should ordinarily be awarded." *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655, 103 S.Ct. 2058, 76 L.Ed.2d 211 (1983); *see also Shott v. Rush-Presbyterian St. Luke's Medical Center*, 338 F.3d 736, 745 (7th Cir.2003) ("in most cases prejudgment interest is an element of full compensation"). Defendant opposes the award of prejudgment interest in this case based on the Plaintiff's six-year delay in filing this action to protect its patent. The Supreme Court's decision in *General Motors* offers some support for denying prejudgment interest based on unnecessary delays. *See General Motors*, 461 U.S. at 657 ("it may be appropriate to limit [or deny] prejudgment interest ... where the patent owner has been responsible for undue delay in prosecuting the lawsuit"). In the years since *General Motors*, however, the Federal Circuit has adhered to the rule that delays by the patentee do not justify denying prejudgment interest "absent prejudice to the Defendants." *Lummus Indus., Inc. v. D.M. & E. Corp.*, 862 F.2d 267, 275 (Fed.Cir.1988) *cited in Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l., Inc.*, 246 F.3d 1336, 1361-62 (Fed.Cir.2001). Other than the amount of the interest that accrued with the passage of time, the Defendant has not alerted the Court of any prejudice it has suffered. Consequently, the Court finds that an award of prejudgment interest is justified in this case.

C. Calculating the Amount of Prejudgment interest

*2 Plaintiffs seek prejudgment interest in the amount of $5,314.22. Plaintiff arrived at this amount by applying the applicable prime rate from the year to its royalty of the annual sales and compounding the interest annually. Defendants object to this calculation and urge that Plaintiff be awarded prejudgment interest in the amount of $878.07. Defendant A.J. asserts that this amount represents simple interest, but it does not provide a source for the interest rate it applied to reach this amount. A simple arithmetic calculation (interest amount/principle = interest rate) reveals a rate of 3.4 percent, but the Defendants do not offer a source for this interest rate.

"The rate of prejudgment interest and whether it should be compounded or uncompounded are matters left largely to the discretion of the district court." *Bio-Rad Laboratories, Inc. v. Nicolet Instrumental Corp.*, 807 F.2d 964, 969 (Fed.Cir.1986). As a general matter, the Court finds that prejudgment interest should be compounded. During the period of infringement, the Defendant retained the royalties that should have been paid to Plaintiff. Compound interest more accurately accounts for the Defendant's increased financial obligation to Plaintiff over time and it comes closer to fully compensating Plaintiff for the infringement of its patent.

Defendant's only argument against compounding the interest is that it results in an interest amount that is nearly 20 percent of the total judgment amount. This argument yields no principle of general application and, if accepted, it would impose a de facto limit on prejudgment interest awards that is inconsistent with the case law. *See, e.g., In re Oil Spill by the Amoco Cadiz off the Coast of France on Mar. 16, 1978*, 954 F.2d 1259, 1335 (7th Cir.1992) (awarding $65 million in damages and $148 million in prejudgment interest). The Court rejects Defendants argument and will compound the interest in this case.

This leaves only the question of what interest rate should apply. The Seventh Circuit provides support for Plaintiff's suggestion of applying the prime rate. *See Gorenstein Enterprises, Inc. v. Quality Care-USA, Inc.*, 874 F.2d 431, 436 (7th Cir.1989). The Seventh Circuit announced:

> [W]e suggest that district judges use the prime rate for fixing prejudgment interest where there is no statutory interest rate. That is a readily ascertainable figure which provides a reasonable although rough estimate of the interest rate necessary to compensate plaintiffs not only for the loss of the use of their money but also for the risk of default.

Id. Consequently, the Court will apply the prime rate that was in effect at the time the royalties accrued.

Plaintiff's calculations of the prejudgment interest, a summary of which is attached to its Motion as Exhibit F, are accurate. The Court will amend the judgment to award Plaintiff $5,314.22 in prejudgment interest.

II. PLAINTIFF'S BILL OF COSTS

*3 Plaintiff timely filed its Bill of Costs on March 15, 2004 seeking recovery of $12,004.69 in costs associated with this action. Plaintiff seeks recovery of the filing fee ($150.00), the fee for service of process ($102.00), the court reporter's fees for producing transcripts ($1,956.90), witness fees ($258.09), photocopying costs ($3606.20), and other costs ($5,931.50). Defendant objects to Plaintiff taxing the court reporter's fees and the portion of the photocopying costs related to color photo-copies

($847.30).

Rule 54(d) of the Federal Rules of Civil Procedure permits the prevailing party to tax its costs as a matter of course. Costs for the fees specified in 28 U.S.C. § 1920 are presumptively awarded to the prevailing party. *See FASA Corp. v. Playmates Toys, Inc.*, 108 F.3d 140, 144 (7th Cir.1997). Should the losing party seek to challenge taxation of those fees enumerated in Section 1920, it must affirmatively demonstrate that those fees were not necessary to the litigation. Both of the items that Defendant objects to in Plaintiff's Bill of Costs are specifically allowed for in 28 U.S.C. § 1920. *See* 28 U.S.C. § 1920(2) (allowing recovery of transcript costs); *id.* 1920(4) (allowing recovery of copying costs).

In order to resolve both of Defendant's objections to Plaintiff's Bill of Costs, then, it becomes necessary for the Court to answer whether the transcripts and/or the color photocopies were "necessarily obtained for use in the case." In the affidavit attached to the Bill of Costs, Plaintiff asserts that the court transcripts were necessary "to prepare and respond to pre- and post-trial motions." (Pl. Aff. Support Bill Costs, ¶ 7) Defendant responds that Plaintiff "did not utilize the transcript at any time during the district court action" and Plaintiff "did not request daily transcripts during trial or use transcripts in post-trial motions." (Def. Objections Bill Costs, at 1). Plaintiff has filed a response in which it asserts that it used the transcripts to: prepare for the January 29, 2004 evidentiary hearing and to prepare for trial; prepare for examination of Joe Chrzanowski; and prepare Lisle's Opposition to A.J.'s Motion to stay the injunction.

Transcripts need not be submitted to the court in order for them to be necessarily obtained for use in the case. Plaintiff's assertion that the transcripts were used in connection with the above listed tasks is sufficient to justify an award of costs for the transcripts. As noted above, costs that are specified in Section 1920 are presumptively awarded to the prevailing party. Defendant's blank assertions that Plaintiff did not need or use the transcripts do not defeat the presumption. Defendant's objection to the costs of the transcript is overruled.

Plaintiff's taxation of photocopies included 458 color photocopies it made to prepare for depositions and trial exhibits. As with the objection to the transcript fees, the Defendant asserts that Plaintiffs color photocopies were not necessarily obtained for use in this case because they were not attached to its briefs or submitted as exhibits at trial. These facts, while they may be true, do not support Defendant's assertion that Plaintiff "did not rely on color copies at any time during this litigation." (Def. Obj. Bill Costs at 1) Plaintiff's use of color photocopies is reasonable in this patent case and Defendant's objection is overruled.

***4** The Court will tax $12,004.69 in costs against Defendant A.J. Manufacturing Company.

III. DEFENDANT'S MOTION TO STAY INJUNCTION PENDING APPEAL

On February 25, 2004, this Court entered a permanent injunction against Defendant A.J. Manufacturing Company that prohibits it from making, using, selling, offering for sale, or importing infringing tools for the life of the patent. The same day, A.J. filed its Motion to Stay the injunction pending the appeal.

In 1987, the Supreme Court set forth the four factors a court should weigh in considering a stay pending appeal: "(1) whether the stay applicant has made a strong showing that he is likely to succeed on the merits; (2) whether the applicant will be irreparably injured absent a stay; (3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and (4) where the public interest lies." *Hilton v. Braunskill*, 481 U.S. 770, 776, 107 S.Ct. 2113, 95 L.Ed.2d 724 (1987). In the context of injunctions against patent infringers, the Federal Circuit has cautioned that the result should come from a weighing of all four elements. "The magnitude of the threatened injury to the patent owner is weighed, in light of the strength of the showing of likelihood of success on the merits, against the injury to the accused infringer if the preliminary decision is in error.... No one element controls the result." *H.H. Robertson, Co. v. United Steel Deck, Inc.*, 820 F.2d 384, 390 (Fed.Cir.1987). Where a patent has been found to be infringed, however, the presumption is in favor of sustaining the injunction. *See Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1247 (Fed.Cir.1990).

A. Likelihood of Success on the Merits of the Appeal

The district court engages in a peculiar calculus when it attempts to discern a party's likelihood of success on the merits of an appeal. While this Court is confident in the decisions that it has made during the course of this litigation, it nevertheless recognizes that the Federal Circuit employs a de novo standard

of review on some of the legal issues that will be presented in the appeal. As the Defendant notes in its motion, the Court arrived at its construction of the claims of the patent in suit with some difficulty. *Lisle Corp. v. A.J. Mfg. Co.*, No. 02 C 7024, Order of Oct. 31, 2003, at 9 (slip op.). Claim construction is one of the areas of the law where the Federal Circuit employs a de novo standard of review. *See* Microsoft Corp. v. Multi-Tech Systems, Inc., 357 F.3d 1340, 1345-46 (Fed.Cir.2004). If the Federal Circuit reaches a different conclusion on how the claims of the patent in suit should be constructed, the resulting determination of infringement would be in doubt. Given the professed difficulties that this Court had in arriving at its claim construction, the Defendants have a fair likelihood of success on the merits of an appeal of the claim construction ruling.

This Court does not find that the Defendants have much likelihood of success on the merits of an appeal based on the public use issue, however. In order to prevail on that issue, the Defendants would have to persuade the Federal Circuit that there was insufficient evidence in the record to support the jury's conclusion that the alleged public use was experimental and therefore not a disqualifying public use. *See* Juicy Whip, Inc. v. Orange Bang, Inc., 292 F.3d 728, 736-37 (Fed.Cir.2002). While this is a difficult standard to meet for any issue, it is particularly difficult where, as here, the Defendant was required to establish the prior public use by clear and convincing evidence. *See id.* at 738. Given the high burden of proof and the difficult standard of review on appeal, the Court finds that the Defendant is unlikely to prevail on the appeal of the experimental use issue.

B. Irreparable Harm to the Defendant from the Injunction

***5** Defendant asserts that this injunction will irreparably harm its relationship with Snap-On Tools, one of its biggest clients. Defendant does not spell out the nature of this irreparable damage. Instead, it relies on the assertion that it will "lose face if it is not permitted to continue selling one of the tools in its line." (Def. Motion Stay, at 2) This speculative loss of goodwill is insufficient to establish irreparable harm that would support staying the injunction. Even if an injunction were to destroy the business entirely, the injunction should nonetheless issue. *See* Windsurfing Intern., Inc. v. AMF, Inc., 782 F.2d 995, 1003 n. 12 (Fed.Cir.1986) ("One who elects to build a business on a product found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected."). The Federal Circuit acknowledged that this harsh rule cannot be applied mechanically, however, and where a party puts forth credible evidence of serious, irreparable harm, a stay pending appeal remains appropriate. *See* Standard Havens Products, Inc. v. Gencor Indus., Inc., 897 F.2d 511, 515 (Fed.Cir.1990). In *Standard Havens,* the Federal Circuit reversed the denial of a stay where the request was supported by affidavits from corporate officers indicating that the injunction would result in "employee layoffs, immediate insolvency, and, possibly, extinction." *Id.* In this case, the Defendant's own motion merely asserts a loss of goodwill and (in its reply brief, which is too late to present a new argument) the specter of lost business with one customer. These asserted harms (which are not clearly supported by any evidence) are insufficient to support a stay of the injunction.

C. Harm of a Stay to Other Parties

In patent litigation, a patent holder benefits from a presumption of irreparable harm prior to trial if it makes a "clear showing that the asserted patent is ... [ ]valid and that it is infringed." Novo Nordisk of North America, Inc. v. Genentech, Inc., 77 F.3d 1364, 1367 (Fed.Cir.1996) (discussing preliminary injunctions in patent cases). Here, Plaintiff has obtained an enforceable (but appealable) judgment that their patent is valid and that the Defendant infringed it, so the presumption is clearly in favor of harm to the Plaintiff. Additionally, Plaintiff presented testimony at trial that it is its practice *not* to license its patented products to any third party. Permitting the Defendant to continue to produce the infringing product pending appeal seriously erodes the Plaintiff's ability to exclude others from utilizing the invention disclosed by its patent.

Plaintiff also asserts that staying the injunction would further harm the interests of one of the inventors, Gerald McKim. Mr. McKim is entitled to a five percent royalty on all sales of Plaintiff's products covered by the patent, but he is arguably not entitled to any royalty from Defendant's sales of products covered by the patent. While the harm to Mr. McKim is not as compelling as the harm to the Plaintiff patent holder in this case, it is nonetheless an injury that would flow from staying the injunction.

D. Public Interest Considerations

***6** Defendant asserts that the public interest in encouraging future innovation and competition favors

the grant of a stay in this case. Specifically, Defendant asserts that "refusing a stay may discourage future innovators from legitimate efforts to design around issued patents." (Def. Motion Stay, at 3) While the public interest in promoting invention is strong, the public interest in the enforcement of valid patents is stronger. As Plaintiff points out, Defendant's position "muddles the distinction between encouraging innovation by promoting new, non-infringing design arounds and discouraging infringing products or failed attempts to design around." (Pl. Opp. Motion Stay, at 6-7) (emphasis omitted). [FN2] The public interest favors denying the stay.

> FN2. Defendant's only other public interest argument in support of a stay is that it would damage the distributor (Snap-On Tools) to whom Defendant sells the infringing tool. This argument was presented for the first time in a Defendant's reply brief, which is too late for presentation of new arguments. Moreover, this argument is not properly considered as part of the public interest analysis; it should be addressed to the third factor in the stay analysis: the harm to other parties interested in the litigation. Since it arrives too late, the Court will not consider it in either place.

E. Weighing the Equities of the Stay

As outlined above, the only factor favoring a stay pending appeal is the Defendant's fair likelihood of success on the appeal of the claim construction issue. The harm to the Plaintiff's ability to exclude others from using its invention is greater than the alleged irreparable harm Defendant will suffer from the injunction. In the face of a jury determination that the patent is valid and this Court's determination that the patent was infringed, the Court concludes the equities of this case favor denying the stay.

CONCLUSION

For the reasons given in this opinion, Plaintiff's Motion to Amend the Judgment is granted; Defendant's Objections to Plaintiff's Bill of Costs are overruled; and Defendant's Motion to Stay the Injunction Pending Appeal is denied.

2004 WL 765872 (N.D.Ill.)

Motions, Pleadings and Filings (Back to top)

- 2004 WL 2257739 (Trial Motion, Memorandum and Affidavit) Lisle's Response to A.J.'s Objections to Lisle's Bill of Costs (Mar. 25, 2004)

- 2004 WL 2257738 (Trial Motion, Memorandum and Affidavit) A.J.'s Reply in Support of Its Motion for Stay (Mar. 10, 2004)

- 2004 WL 2257735 (Trial Motion, Memorandum and Affidavit) Lisle's Memorandum Regarding Relevant Evidence for a Determination of a Reasonable Royalty (Jan. 28, 2004)

- 2004 WL 2257736 (Trial Motion, Memorandum and Affidavit) A.J.'s Memorandum of Law Regarding Claim Scope (Jan. 28, 2004)

- 2004 WL 2257732 (Trial Motion, Memorandum and Affidavit) Aj's Response to Lisle's Objection to Proposed Jury Instruction 6.7 (Reduction to Practice) (Jan. 21, 2004)

- 2004 WL 2257733 (Trial Motion, Memorandum and Affidavit) AJ's Response to Lisle's Objections to AJ's Proposed Special Interrogatories (Jan. 21, 2004)

- 2003 WL 23820205 (Trial Motion, Memorandum and Affidavit) Lisle's Memorandum in Opposition to A.J.'s Motion to Strike Lisle Expert Report with Respect to Infringement by Equivalence (Oct. 03, 2003)

- 2003 WL 23820200 (Trial Motion, Memorandum and Affidavit) Aj's Response to Lisle's Statement of Undisputed Material Facts in Support of Its Opposition to A.J.'s Motion for Summary Judgment (Sep. 15, 2003)

- 2003 WL 23820202 (Trial Motion, Memorandum and Affidavit) Aj's Memorandum of Law in Reply on Its Motion for Summary Judgment (Sep. 15, 2003)

- 2003 WL 23820203 (Trial Motion, Memorandum and Affidavit) Lisle's Memorandum in Reply to A.J.'s Opposition to Lisle's Motion for Summary Judgment of Infringement of U.S. Patent No. 5,287,776 (Sep. 15, 2003)

- 2003 WL 23820194 (Trial Motion, Memorandum and Affidavit) Lisle's Memorandum in Opposition to A.J.'s Motions for Summary Judgment of Non-Infringement and Invalidity of U.S. Patent No. 5,287,776 (Sep. 08, 2003)

- 2003 WL 23820197 (Trial Motion, Memorandum and Affidavit) AJ's Response to Lisle's Statement of

Undisputed Material Facts (Sep. 08, 2003)

• 2003 WL 23820198 (Trial Motion, Memorandum and Affidavit) AJ's Memorandum of Law in Opposition to Lisle's Motion for Summary Judgment of Infringement of U.S. Pat. No. 5,287,776 (Sep. 08, 2003)

• 2003 WL 23820204 (Trial Motion, Memorandum and Affidavit) Aj's Amended Memorandum of Law in Support of Its Motion for Summary Judgment of Non-Infringement and Invalidity of U.S. Pat. No. 5,287,776 (Aug. 27, 2003)

• 2003 WL 23820191 (Trial Motion, Memorandum and Affidavit) A.J.'s Reply on its Motion for Reconsideration (Jul. 14, 2003)

• 2003 WL 23820185 (Trial Motion, Memorandum and Affidavit) Lisle Corporation's Brief on Claim Construction (Jun. 09, 2003)

• 2003 WL 23820186 (Trial Motion, Memorandum and Affidavit) A.J. Manufacturing Company, Inc.'s Markman Brief in Support of its Motion for Interpetation of Disputed Claim Language (Jun. 09, 2003)

• 2002 WL 32682856 (Trial Pleading) Answer (Oct. 11, 2002)

• 2002 WL 32682851 (Trial Pleading) Plaintiff Lisle Corporation's Complaint (Oct. 01, 2002)

• 1:02CV07024 (Docket) (Oct. 01, 2002)

END OF DOCUMENT

LEXSEE 1999 U.S. DIST. LEXIS 21094

PROMEGA CORPORATION, a Wisconsin corporation, Plaintiff, v. LIFECODES CORPORATION, a New York corporation, THE UNIVERSITY OF UTAH, and THE UNIVERSITY OF UTAH RESEARCH FOUNDATION, Defendants.

Civil Action No. 2:93-CV-0184C

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

1999 U.S. Dist. LEXIS 21094; 53 U.S.P.Q.2D (BNA) 1463

October 27, 1999, Decided
October 27, 1999, Filed

DISPOSITION: [*1] Plaintiff awarded trebled damages, reasonable attorney fees and prejudgement interest on the actual damage portion.

CASE SUMMARY:

PROCEDURAL POSTURE: Plaintiff, licensee of a patent, brought infringement action against defendant, successor to original licensor, for willful infringement on patent relating to DNA probes for use in human genetic identification. Defendant admitted validity and infringement. The only issues were those that related to the amount of damages defendant owed plaintiff.

OVERVIEW: Plaintiff held a license for a patent relating to DNA probes for use in human genetic identification. Plaintiff brought infringement action against defendant, successor to original licensor, for willful infringement. Defendant admitted validity and infringement. The only issues were those that related to the amount of damages. The parties were direct competitors and plaintiff generally did not grant licenses for the patents it held. The court concluded that the hypothetical license would be a co-exclusive license. Weighing all factors, the court concluded the parties would have agreed upon a reasonable royalty rate of 22 percent. Defendant's continued breach of the license agreement was not justified by prior arbitrator's refusal to grant plaintiff's request for specific performance. Defendant did not have a good faith belief that plaintiff was merely an agent, rather than a licensee. Defendant's infringement was willful; award of treble damages was appropriate, as were attorney fees and prejudgment interest.

OUTCOME: Plaintiff was awarded trebled damages, reasonable attorney fees and prejudgement interest on the actual damage portion. Defendant's continued breach of license agreement was not justified by prior arbitrator's refusal to grant plaintiff's request for specific performance. Defendant's infringement was willful.

LexisNexis(R) Headnotes

Copyright Law > Civil Infringement Actions > Jurisdiction & Venue > Federal Court Jurisdiction
Patent Law > Jurisdiction & Review > Subject Matter Jurisdiction > General Overview
[HN1] The district court has jurisdiction over patent actions under *28 U.S.C.S. § 1338*(a).

Patent Law > Ownership > Conveyances > General Overview
Patent Law > Infringement Actions > Defenses > General Overview
[HN2] *35 U.S.C.S. § 287* imposes a duty to mark patented items not only on patentees, but also on persons making, offering for sale, or selling within the United States any patented article for or under them.

Patent Law > Ownership > Conveyances > General Overview
Patent Law > Infringement Actions > Defenses > General Overview

[HN3] Licensees must comply with the marking provisions of *35 U.S.C.S. § 287.*

Patent Law > Infringement Actions > Defenses > General Overview

[HN4] To constitute notice, as required by *35 U.S.C.S. § 287,* a letter would have to notify the infringer of the infringement.

Patent Law > Infringement Actions > Defenses > General Overview

[HN5] To meet the notice requirements of *35 U.S.C.S. § 287,* affirmative notice must be given of the specific infringement, and it is irrelevant whether the defendant knew of the patent or knew of his own infringement.

Civil Procedure > Pleading & Practice > Pleadings > Amended Pleadings

Civil Procedure > Pleading & Practice > Pleadings > Relation Back

[HN6] Fed. R. Civ. P. 15 states that an amendment of a pleading relates back to the date of the original pleading when the claim or defense asserted in the amended pleading arose out of the conduct, transaction, or occurrence set forth or attempted to be set forth in the original pleading.

Patent Law > Infringement Actions > Defenses > General Overview

Patent Law > Remedies > Damages > General Overview

[HN7] Convoyed sales occur when unpatented goods are sold simultaneously with a patented device.

Patent Law > Infringement Actions > Defenses > General Overview

Patent Law > Remedies > Damages > General Overview

[HN8] Applying the "entire market rule," to recover damages on unpatented convoyed goods, the unpatented components must function together with the patented components in some manner so as to produce a desired end product or result. All the components together must be analogous to components of a single assembly or be parts of a complete machine, or they must constitute a functional unit.

Patent Law > Remedies > Damages > General Overview

[HN9] Lacking adequate evidence of an established royalty, the court is left with the judge-created methodology described as hypothetical negotiations between willing licensor and willing licensee. The court can consider a variety of factors in determining what rate would have been agreed upon in this hypothetical negotiation.

Patent Law > Ownership > Conveyances > Licenses

Patent Law > Remedies > Damages > General Overview

[HN10] A list of 15 evidentiary facts are relevant, in general, to the determination of the amount of a reasonable royalty for a patent license. These factors generally fall into two groups. One group relates to the specific and general market conditions in the pertinent industry. These include: (1) prior and existing licenses under the patent; (2) industry custom and licenses on comparable patents; and (3) the patent owner's licensing policy and the relation between the parties. This first group of factors points to the rate that the parties would have adopted within that range.

Patent Law > Remedies > Damages > Reasonable Royalties

Patent Law > Remedies > Damages > Infringer Profits

[HN11] A list of 15 evidentiary facts are relevant, in general, to the determination of the amount of a reasonable royalty for a patent license. These factors generally fall into two groups. The second group of factors relates to the anticipated profitability of the product or process made, used, or sold by the infringer and covered by the patent. These include: (1) infringer's anticipated profits; (2) comparative utility and noninfringing alternatives; (3) collateral benefits and convoyed sales; (4) improvements, small parts and apportionment; (5) state of development and commercial success; and (6) duration of the patent. The second group of factors in a sense sets the range of feasible rates since a willing patent owner would demand a greater than minimum rate for a profitable invention and a willing user would concede no more than the expected amount of profit (adjusted for the uncertainty as to its realization).

Patent Law > Ownership > Conveyances > Royalties

Patent Law > Remedies > Damages > General Overview

[HN12] In determining a reasonable royalty, courts give considerable weight to actual prior and existing licenses granted under the patent in suit, even though such licenses fail to meet the standards for an established royalty.

Patent Law > Remedies > Collateral Assessments > Increased Damages

Patent Law > Remedies > Damages > General Overview

[HN13] Treble damages for a willful infringement under *35 U.S.C.S. § 284* are not compensatory but punitive.

Plaintiff bears the burden of proving that defendant's infringement was willful by clear and convincing evidence, for the boundary between unintentional and culpable acts is not always bright.

Patent Law > Inequitable Conduct > Effect, Materiality & Scienter > General Overview
Patent Law > Infringement Actions > General Overview
Patent Law > Remedies > Collateral Assessments > General Overview
[HN14] The determination of whether an infringer acted willfully depends primarily on whether the infringer, acting in good faith and upon due inquiry, had sound reasons to believe that it had the right to act in the manner that was found to be infringing. The law of willful infringement does not search for minimally tolerable behavior, but requires prudent, and ethical, legal and commercial actions. Thus precedent displays the consistent theme of whether a prudent person would have had sound reason to believe that the patent was not infringed or was invalid or unenforceable, and would be so held if litigated.

Patent Law > Remedies > Collateral Assessments > General Overview
Patent Law > Remedies > Damages > General Overview
[HN15] A determination of whether an infringer acted willfully must be based on the totality of the circumstances.

Patent Law > Remedies > Collateral Assessments > General Overview
Patent Law > Remedies > Damages > General Overview
[HN16] In a patent infringement action, while reliance on the advice of counsel can be a meritorious defense to a claim of willfulness, not all legal advice in all situations will suffice. When this defense is raised the court may consider the nature of the advice, thoroughness and competence of the legal opinion presented, and its objectivity. The court will determine whether the advice of noninfringement could have reasonably been relied on, and whether, on the totality of the circumstances, exculpatory factors avert a finding of willful infringement. The totality of the circumstances may include not only such aspects as the closeness or complexity of the legal and factual questions presented, but also commercial factors that may have affected the infringer's actions.

Patent Law > Remedies > Collateral Assessments > General Overview
Patent Law > Remedies > Damages > General Overview
[HN17] In a patent infringement action, to serve as exculpatory legal advice, the opinion of counsel is viewed objectively, to determine whether it was obtained in a timely manner, whether counsel analyzed the relevant facts and explained the conclusions in light of the applicable law, and whether the opinion warranted a reasonable degree of certainty that the infringer had the legal right to conduct the infringing activity.

Patent Law > Remedies > Collateral Assessments > Increased Damages
Patent Law > Remedies > Damages > General Overview
[HN18] *35 U.S.C.S. § 284* permits a trial court to increase the damages up to three times the amount found or assessed.

Patent Law > Remedies > Collateral Assessments > Increased Damages
Patent Law > Inequitable Conduct > Effect, Materiality & Scienter > General Overview
Patent Law > Remedies > Damages > General Overview
[HN19] In determining whether damages should be enhanced under *35 U.S.C.S. § 284,* and to what degree, the court must bear in mind that the remedy of enhancement of damages not only serves its primary punitive/deterrent role, but in so doing it has the secondary benefit of quantifying the equities as between patentee and infringer. Courts may consider such factors as whether there was deliberate copying, whether the infringer knew of the patent and had a good faith belief that it was invalid, the infringer's behavior as a party to the litigation, the defendant's size and financial condition, and the closeness of the willfulness issue.

Patent Law > Remedies > Collateral Assessments > Attorney Fees
Patent Law > Remedies > Collateral Assessments > Increased Damages
[HN20] *35 U.S.C.S. § 285* authorizes the court in exceptional cases to award a reasonable attorney fees to the prevailing party in a patent infringement case. The right to such an award must be established by clear and convincing evidence.

Patent Law > Remedies > Collateral Assessments > Attorney Fees
[HN21] A finding of willful infringement is sufficient to classify a case as exceptional and award attorney fees.

Patent Law > Remedies > Damages > General Overview

Patent Law > Remedies > Collateral Assessments > Attorney Fees
[HN22] *35 U.S.C.S. § 284* permits the award of interest as fixed by the court.

Patent Law > Remedies > Damages > Reasonable Royalties
Patent Law > Remedies > Damages > Time Limitations
Patent Law > Remedies > Collateral Assessments > Prejudgment Interest
[HN23] An award of prejudgment interest under *35 U.S.C.S. § 284* is necessary to ensure that the patent owner is placed in as good a position as he would have been in had the infringer entered into a reasonable royalty agreement. An award of interest from the time that the royalty payments would have been received merely serves to make the patent owner whole, since his damages consist not only of the value of the royalty payments but also of the foregone use of the money between the time of infringement and the date of the judgment.

Patent Law > Remedies > Collateral Assessments > Prejudgment Interest
Patent Law > Remedies > Collateral Assessments > Attorney Fees
Patent Law > Remedies > Damages > General Overview
[HN24] Prejudgment interest under *35 U.S.C.S. § 284* can only be applied to the primary or actual damage portion and not to the punitive or enhanced portion.

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JUDGES: Tena Campbell, United States District Judge.

OPINIONBY: Tena Campbell

OPINION:

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Plaintiff Promega Corporation ("Promega") has brought this action against defendant Lifecodes Corporation ("Lifecodes") for willful infringement of U.S. Patent No. *4,963,663* ("White Patent") which relates to DNA probes for use in human genetic identification. Lifecodes has admitted both the validity of the White Patent and that it has infringed the patent. Therefore, the only issues for resolution are those that relate to the amount of damages Lifecodes owes Promega.

Promega initially sought only those damages it claimed to have sustained before December 9, 1991. On April 21, 1999, Promega was given leave to file an amended complaint and expand its damage claim for the entire period of Lifecodes' infringement. On April 27 through April 30, 1999, the case was tried to the court sitting without a jury.

Now, as required by *Federal Rule of Civil Procedure 52*, the court makes the following Findings of Fact and Conclusions of Law:

FINDINGS [*3] OF FACT

A. The Patent

The White Patent is directed to nucleotide probes used to isolate particular regions of DNA for human identity purposes. The patent was issued in 1990 to Dr. Raymond L. White, a professor and scientist at the University of Utah, ("the University"). The patent was then assigned to the University.

B. The Technology

Promega has alleged that Lifecodes infringed two of the White Probes: YNH24 and MLJ14 (also known as

CMM101). n1 YNH24 is the stronger, and hence, the most valuable of the two White Probes. Genetic testing requires the use of several probes and, although YNH24 is generally one of the probes, other probes are used with YNH24 in conducting tests. YNH24 is used on most samples in forensic and paternity testing; MLJ14 is used less frequently. A Lifecodes probe, V1, is also a commonly used probe.

n1 When used in this decision, the term "White Probes," refers to only YNH24 and MLJ14.

Reagents are used with probes in the testing process. Probes can be used interchangeably [*4] with reagents because the reagents do not interact with the probes themselves. In a test, the reagents cut the DNA into fragments which can then bind to the probes.

In 1988, when Lifecodes first began selling the White Probes, it offered them in "kits." A kit contained a White Probe and the reagents necessary to carry out identity testing. By 1991, the sale of kits had dwindled as Lifecodes' customers became more sophisticated in the use of the materials and began purchasing reagents apart from the probe, frequently on the basis of price. By 1990, dozens of companies, not all of which also sold probes, sold the reagents used in identity testing.

Lifecodes also sold the White Probes in "cocktails." A cocktail contained several probes in addition to the White Probes; some cocktails contained Lifecodes' own probes.

The probes sold by Lifecodes had certain "value added" features, not found in the probes sold by Promega. These features included the prelabeling of probes with a radioactive composition that made the DNA bands visible when exposed to x-ray film. Another feature was a database, developed by Lifecodes for use in genetic testing. Customers of Lifecodes were given access, without [*5] charge, to the database.

C. The Confidentiality Agreement

On October 7, 1986, at the direction of Dr. White, Peter O'Connell of the University sent samples of the DNA probes discovered by Dr. White to Lifecodes for Lifecodes to evaluate whether the probes would be useful for forensic purposes. O'Connell cautioned Lifecodes that he was "sending these probes with the understanding that they are to be used exclusively for research purposes. Please send me a letter confirming that understanding and describing your research plans." (Letter from O'Connell to Balazs of 10/7/86, Pl.'s Ex. 1.) One week later, Ivan Balazs of Lifecodes wrote O'Connell and agreed that Lifecodes would use the probes "only for research and not distribute them to any other laboratory." (Letter from Balazs to O'Connell of 10/15/86, Pl.'s Ex. 2.)

In February 1988, the University and Lifecodes formalized their agreement and Lifecodes signed a "Confidential Disclosure Agreement," in which it agreed that it would not use the probes that it had been sent "for any commercial purpose." (Confidential Disclosure Agreement, Pl.'s Ex. 6.)

D. Agreements to License the White Technology

On May 13, 1988, the [*6] University granted Genmark (then know as "Westgene") an exclusive license to make, sell, and use the technology that would later be covered by the White Patent (the "White Technology"). The parties believed that the White Technology would eventually be covered by a patent and, when that occurred, Genmark would pay 6% of the net sales of the probes until sales of $ 10,000,000 were reached; the royalty rate would then increase to 8% of the net sales of the probes. Until a patent issued, the royalty rate was one-half of the rate to be paid under a patent.

In 1989, Genmark and Promega entered into a sales agency agreement for the White Technology. This agreement marked Promega's entry into the area of genetic identity. Under this agreement, Promega became Genmark's exclusive sales agent with the right "to sell and distribute PROBE PRODUCTS solely for use in manual procedures that have applications in human paternity testing and forensic identification." (1989 Agreement between Genmark and Promega, Pl.'s Ex. 14 at 2.1(a).) Genmark reserved the right to manufacture the probes. Promega paid an 18% royalty to Genmark on all sales of probes and on unpatented reagents used with the probes (e. [*7] g., enzymes and buffers). Genmark had the right to change Promega's agency from an exclusive agency to a nonexclusive agency. In that event, the royalty rate would be decreased to 9%.

In July 1990, Genmark and Promega entered into a second agreement ("the 1990 Agreement") which replaced their earlier agreement. Under the 1990 Agreement, Promega held an exclusive sublicense to the White Technology, including the right to manufacture and modify the probes. Promega paid Genmark a $ 60,000 execution fee and a 30% royalty on the sale of the probes. The parties believed that a patent would soon issue, and Promega was given the right to keep its sublicense should a patent issue. The term of the agreement was five years, and would end in July 1995.

On February 1, 1991, Genmark granted Cetus Corporation a nonexclusive license for a limited use that

had been specifically exempted from the 1990 Agreement between Genmark and Promega. Cetus was given the right to develop, manufacture, and sell the probes in conjunction with Cetus' own proprietary technology. The parties agreed that Cetus would pay a 5% royalty rate on probe sales.

On July 31, 1991, Genmark granted Biosystems, Inc. a limited use [*8] license that was co-exclusive with the license Genmark had granted Cetus. The royalty rate was 5%.

E. The First Lawsuit

The White Patent issued on October 6, 1990. On December 16, 1990, Promega sent a form letter to those who had expressed interest in the White Patent. Dr. Jacob Victor, vice-president of Lifecodes, received a copy of the letter. The letter notified the recipients that the White Patent had issued, that Genmark and Promega held exclusive licenses in the technology covered by the patent, and that further information was available from Promega. Nothing in the letter was personally directed to Lifecodes and its use of the probes. The letter did not warn Lifecodes that Promega believed that the White Patent was being infringed.

On July 9, 1991, the State of Utah, the University of Utah, and Genmark joined as plaintiffs in a lawsuit against Lifecodes, claiming that two of the probes manufactured and sold by Lifecodes, the "White Probes," infringed the claims of the White Patent. Although Promega was not a party to the lawsuit, Lifecodes was well aware that Promega had an interest in the White technology. As early as August 1991, Genmark warned Lifecodes that Genmark [*9] could not grant Lifecodes a license to sell the probes without the permission of Promega. In November 1991, Lifecodes' attorney, in notes taken during a meeting, described Promega as Genmark's exclusive licensee.

Genmark and Promega discussed the possibility that the lawsuit could be settled if Promega would grant Lifecodes a sublicense under the White Patent. In exchange, Genmark would extend Promega's license under the 1990 Agreement from five years to the life of the White Patent. Dr. Dimond, vice-president and chief technical officer of Promega, explained the proposed settlement: "So essentially what we were trying to set up with Genmark is a trade where we would be willing to potentially negotiate away our exclusivity for picking up the extra years beyond 1995 that the patent would be in force." (Tr. of April 27, 1999, at 177.)

In furtherance of that proposal, on September 26, 1991, William Linton, Promega's president, wrote Lifecodes' president, Walter Fredericks, a letter outlining the terms under which Promega would grant Lifecodes a sublicense. The proposal required that Lifecodes pay Promega $ 475,000 for the first two years of the license agreement and $ 325,000 for the [*10] following years (the agreement would last until the White Patent ended). Lifecodes did not accept the offer and no sublicense was granted.

On December 9, 1991, the University, Genmark and Lifecodes settled the lawsuit. As part of the settlement, Genmark assigned to Lifecodes its exclusive license under the White Patent for $ 600,000. Lifecodes agreed to assume all of Genmark's rights and obligations under the 1990 agreement between Promega and Genmark. n2

n2 On July 16, 1998, this court held that because Promega was not a party to the 1991 litigation, it was not bound by the terms of the settlement between Genmark and Lifecodes.

F. The First Arbitration

On June 22, 1992, Promega instituted an arbitration proceeding against Lifecodes, as provided by Section 17.8 of the 1990 Agreement. n3 Promega claimed that Lifecodes, now standing in the shoes of Genmark, had breached the 1990 Agreement by its manufacture and sales of the DNA probes covered by the White Technology, including the White Probes. Lifecodes [*11] contended that under the 1990 Agreement, Promega was a sales agent, not a licensee, and that the agency had terminated when Lifecodes took Genmark's place under the Agreement. Lifecodes' position in the First Arbitration is reflected in a draft pleading entitled "Lifecodes' Key Positions," authored in August 1992, by one of Promega's attorneys. The draft pleading was sent to Walter Fredericks, president of Lifecodes, by the attorney with an explanation that it was "for our internal reference only and will not be communicated to the Arbitrator in this form." (Lifecodes' Key Positions, draft of Aug. 27, 1992, Def.'s Ex. CI.)

n3 Section 17.8 requires that "any dispute between the parties concerning the terms of this Agreement or the obligations or duties arising thereunder shall be submitted to arbitration. . . ." (Pl.'s Ex. 15 at 17.8.) The Arbitrator's jurisdiction was necessarily limited to "issues that concern the terms of and the obligations and duties" imposed by the 1990 agreement and did not extend to questions arising under the patent laws. (Decision of Arbitrator, March 1, 1993, Pl.'s Ex. 28 at P 1.)

[*12]

Following the First Arbitration, on November 3, 1992, the Arbitrator issued a decision. The Arbitrator found that Promega was not a sales agent under the 1990 Agreement but had a limited exclusive worldwide sublicense to manufacture, sell and distribute the probes. The Arbitrator held that Lifecodes' manufacture and sales of the probes was in breach of the 1990 Agreement.

In a subsequent decision, issued March 1, 1993, the Arbitrator found that Promega was entitled to damages for Lifecodes' breach. However, the Arbitrator denied Promega's request for specific performance of the 1990 Agreement, finding that Promega's remedies at law were adequate to compensate it for Lifecodes' breach. The Arbitrator wrote: "In this case, the remedies at law for the breach of the 1990 Agreement are adequate to compensate Promega for the breaches of Lifecodes. In addition, the balancing of the interests of the parties and the interest of the public weigh against requiring Lifecodes to cease further sales of the Probes." n4 (Decision of Arbitrator, March 1, 1993, Pl.'s Ex 28 at P 7.) The Arbitrator held that: n5

> But for the breaches of the 1990 Agreement by Lifecodes, Promega would have made [*13] additional sales of Probes that would have generated revenue from Probe sales, user fees, and sales of supporting reagents. However, Promega would not have made sales corresponding to every sale in breach by Lifecodes.
>
> . . .
>
> For the period from December 10, 1991, up to March 1, 1993, Promega has suffered damage which includes lost profits from the sale of Probes and reagents and the collection of user fees, lost exclusivity, the prejudgment interest in the total amount of $ 51,560.37.

(Id. at PP 4, 6.)

> n4 The Honorable David K. Winder found that the Arbitrator's ruling on the adequacy of Promega's remedies was not binding in this patent action and that "the Arbitrator's additional findings on the balancing of the interests of the parties and the public interest were dicta . . . ." (Findings of Fact and Conclusions of Law on Mot. for Prelim. Inj., Pl.'s Ex. 34 at P 17.)
>
> n5 This court has previously held that because Promega's claim for a reasonable royalty under *35 U.S.C. § 284* was not before the arbitrator, Promega could seek recovery for a reasonable royalty in this action, minus the $ 51,560.37 awarded by the Arbitrator.

[*14]

Despite the Arbitrator's decision that under the 1990 agreement, Promega had the exclusive right to manufacture and sell the White probes and that Lifecodes had breached the 1990 agreement, Lifecodes continued to make and sell the White Probes.

G. The Second Lawsuit

On February 19, 1993, Promega filed this patent infringement action against Lifecodes and filed a motion to enjoin Lifecodes' continued infringement of the White Patent. In the proceedings for a preliminary injunction, Lifecodes did not contest that its sales of Lifeprint Identity Probe D2S44 and Lifeprint Identity Probe D14S13 infringed the White Patent. (Findings of Fact and Conclusions of Law on Mot. for Prelim. Inj., Pl.'s Ex. 34 at 4.) On May 17, 1993, Judge Winder granted Promega's Motion for a Preliminary Injunction. In response to Lifecodes' argument that its customers would be harmed if Lifecodes could no longer supply them with its infringing products, Judge Winder concluded that Lifecodes' customers' needs could be met by Promega. Judge Winder further found that "any services that Promega does not supply, such as radioactive labeling of samples, are available to Lifecodes' customers on the open market." [*15] (Id. at 16.) Finally, Judge Winder eliminated any possible prejudice to Lifecodes' customers by delaying the effective date of the injunction for thirty days.

Lifecodes continued its infringing sales and shipments into the month of June 1993. Lifecodes' last shipment of infringing probes, in the amount of $ 700, occurred on June 15, 1993, when Lifecodes shipped five sets of unlabeled insert D2S44 (corresponding to the White Probe YNH24) to the Kansas City Police Department. (Invoice No. 001815, last pg., Pl.'s Ex. 169.)

H. The Second Arbitration

In 1995, following the expiration of the 1990 Agreement, a dispute arose between Promega and Lifecodes about Promega's right to continue manufacturing and selling modified versions of the probes. The controversy arose out of the provisions of the 1990 Agreement that gave Promega, "during the term of the Agreement . . . the right to improve, modify or enhance any Probe obtained from Genmark" and, after

the 1990 Agreement ended, required Genmark to "grant Promega a non-exclusive license in any Underlying Probes to be used solely with Modifications and Promega shall grant Genmark a non-exclusive licence to market and manufacture [*16] Probes using Modifications." (Pl.'s Ex. 15 at 13.1, 13.2.)

In June 1995, Promega and Lifecodes attempted to resolve the dispute and negotiate the terms for a non-exclusive for Promega to market and manufacture the modified probes. During the negotiations, Promega's president, Bill Linton, informed Walter Fredericks, that he believed "that a rate between 5-10% is normal for a non-exclusive license, but that we would also consider other agreements and royalty rates which Lifecodes has in place." (Letter from Linton to Fredericks of 6/26/95, Def.'s Ex. BG.) Later in the negotiations, Promega's business manager, Thomas Mozer, rejected Fredericks counter-proposal, stating that:

> Our analysis reveals that Lifecodes' proposals would result in payments by Promega that are higher than were provided for in our original 1989 agreement with Genmark and nearly equal to those provided in the 1990 Agreement. This is despite the fact that our rights are reduced substantially from both agreements. Specifically, we are offered a co-exclusive and not an exclusive license, we are allowed to sell only a limited number of probes, and we are not allowed any further modifications of these probes. [*17] Each of these limitations warrants a reduction in the royalty rate paid to Lifecodes under the 1990 Agreement.
>
> To summarize our thinking, it is widely recognized and practiced that the discount for a nonexclusive license is, on average, 75% of the royalties paid for an exclusive license. Assuming that our 1990 Agreement was a fair market evaluation with its royalty rate of 30%, this limitation in the scope of the license alone would reduce the royalty rate to 7.5%. The further restriction of all proposals to the limited number of probes and the condition that no further modifications of probes can be made each warrants additional reduction in royalties. Whether you agree with our arithmetic or not, it is obvious to anyone who is truly intent upon a fair settlement that a proposal for a limited non-exclusive license has substantially diminished the potential value of the technology.

(Letter from Mozer to Fredericks of 2/8/96, Def.'s Ex. BH.)

Promega and Lifecodes did not reach an agreement for a sublicense and, once again, because the controversy concerned the terms of the 1990 Agreement, returned to arbitration. Following the conclusion of the Second Arbitration, the [*18] Arbitrator held that Promega had the right, as a nonexelusive licensee, to continue to manufacture, use, and sell certain of the probes that it had modified during the term of the 1990 Agreement. The Arbitrator set the royalty rate to be paid by Promega to Lifecodes at "12% of Promega's gross income from the sale or licensing of [the modified] Probes." (Final Award of Arbitrator, Pl.'s Ex. 32 at 5.) The Arbitrator found that "since the license from Lifecodes to Promega is a non-exclusive license and since Promega has no further right to make Modifications of the Probes, the royalty rate should be substantially lower than the 30% rate set forth in the 1990 Agreement." (Id. at 4.)

I. Lifecodes' Communications with Counsel

Lifecodes, although admitting that it has infringed the White Patent, maintains that it did not act willfully. Lifecodes bases this defense, in part, on various communications it has had with its patent attorneys, beginning in 1988, before the White Patent issued. These communications can be divided into three groups, corresponding to the three separate law firms Lifecodes has employed: First, Pennie & Edmonds; Second, Saliwanchik & Saliwanchik, and [*19] Finally, Marshall, O'Toole, Gerstein, Murray & Borun.

1. Pennie & Edmonds

Lifecodes had been using the White Probes in forensic testing, and in 1988, Lifecodes wanted to begin selling DNA probes, including its copies of the White Probes. n6 Before it began its sales, however, it sought the advice of Pennie & Edmonds, about the propriety of Lifecodes selling the White Probes. Lifecodes gave Pennie and Edmonds certain information about the White Probes, information which, apparently, was incomplete and, to some degree, incorrect.

> n6 There is no question that Lifecodes produced copies of YNH24 and MLJ14 from the samples of the probes it received in 1988 from the University.

On August 1988, Leslie Misrock of the firm sent Lifecodes a written opinion letter. Misrock gave no

opinion on any patent issues but confined his remarks to the area of trade secrets. Several of Misrocks's opinions were clearly erroneous as a result of the faulty information given him by Lifecodes. For example, and contrary to Lifecodes' [*20] admission throughout this litigation that its probes are copies of the White Probes, Misrock opined that "Lifecodes' probes are structurally different from MLJ 14 and YNH 24 . . . ." (Letter from Misrock to Winkler of 8/16/88, Def's Ex. BR at 4 (emphasis in original).) Misrock also stated that "Lifecodes did not explicitly or implicitly agree that the probes were provided to them under confidence or as trade secrets . . . ." (Id. at 7-8.) This statement completely ignores the correspondence between Lifecodes and the University concerning the confidentiality of the probes, and the February 1988 Confidential Disclosure Agreement which Lifecodes had signed.

After the White Patent issued, Lifecodes asked Pennie & Edmonds for an opinion whether Lifecodes was infringing any of the claims of the patent. On February 7, 1991, before giving an opinion, Sam Abrams informed Lifecodes that the law firm was still evaluating the various questions, including whether a public disclosure of the sequence data of the White Probes had been made, and whether the Lifecodes' probes differed from the invention disclosed in the patent. (Letter from Abrams to Baird of 2/7/91, Def.'s Ex. BV.) Abrams [*21] gave no opinion whether Lifecodes was, or was not, infringing the White Patent.

At trial, Walter Fredericks testified that Lifecodes had also relied on an oral "opinion" given by its attorneys in March 1991. According to Fredericks, the oral opinion is reflected in a memo that reads:

> Sam Abrams will send some case law on the use of slides in relation to their being viewed as 'printed publications.' The major point in a patent dispute is if the invention has been put in the hands of the public through the slide presentation. Sam feels this point, even if we do not produce notes taken at the meeting but rely on statements from attendees, is enough for an opinion by him of noninfringement.

(Memo of March 7, 1991, Def.'s Ex. DZ.) The statement made by Abrams is not an opinion that Lifecodes was not infringing the White Patent. Apparently, Abrams was referring to an allegation that in 1986, at a scientific symposium, Dr. White gave a slide presentation in which he revealed the nucleotide sequences of the White Probes. (The question of whether he had made such a presentation was unanswered at trial.) At best, Abrams stated that if he were given statements from those who [*22] had witnessed this slide presentation, he could give an opinion.

2. Saliwanchik & Saliwanchik

When the University and Genmark brought suit against Lifecodes in July 1991, Pennie & Edwards had not yet given Lifecodes an opinion on whether Lifecodes was infringing the White Patent. Lifecodes turned to a different law firm, Saliwanchik & Saliwanchik. On September 23, 1991, David Saliwanchik sent a letter to Lifecodes. In his letter, Saliwanchik did not address the question of Lifecodes' possible infringement, noting that before he could do so "we would need some scientific input describing the differences between pYNH24 and the probes you sell." (Letter from Saliwanchik to Fredericks of 9/23/91, Pl.'s Ex. 138 at 1.) Nor did Saliwanchik state that the White Patent was invalid. Rather, Saliwanchik stated:

> We will attempt to expose some of the areas where we feel that the White *et al.* patent is most susceptible to attacks on its validity. . . . At this point, without scientific input regarding technical matters, it is not Possible to provide definitive answers regarding many of the issues we have identified. Also I should note that patent infringement trials are generally [*23] conducted before a jury of laypersons. Given the uncertainties of litigation and the complexity of the subject matter, even the most solid patent stands a fair chance of being found invalid. As we discuss below, there are a number of issues which suggest that the White *et al.* patent may not, in fact, be the most solid of patents. Therefore, I believe that the owners of this patent have considerable motivation to avoid litigation.

(Id. at 2.)

Saliwanchik then identified possible areas "where, based on the information we have received to date, we believe the patent is most vulnerable to attack." (Id. at 5.) Throughout the letter, Saliwanchik makes clear that he needed more information before he could fully evaluate the issues of validity and infringement. Lifecodes did not respond to Saliwanchik's requests for additional information.

3. Marshall. O'Toole, Gerstein, Murray, & Borun

Shortly after receiving the Saliwanchik letter, Lifecodes retained a third law firm, Marshall, O'Toole, Gerstein, Murray & Borun, to handle the lawsuit brought

against Lifecodes by the University and Genmark. On November 5, 1991, Walter Fredericks met with one of the attorneys from [*24] the law firm, Edward O'Toole. At the meeting, O'Toole told Fredericks that it was his opinion that Lifecodes was literally infringing the claims of the White Patent and Lifecodes should settle the pending lawsuit. Following the meeting, Fredericks also believed that the White Patent was valid.

CONCLUSIONS OF LAW

[HN1] The court has jurisdiction over this patent action under *28 U.S.C. § 1338*(a). Venue is not disputed.

A. The Marking Requirement

Lifecodes contends that because the White Probes were not marked as being covered by a patent, that under *35 U.S.C. § 287,* Lifecodes was not given the required notice of infringement until July 9, 1991, when the First Lawsuit was filed. If Lifecodes is correct, § 287 bars recovery of damages that occurred before July 9, 1991. While admitting that the White Probes did not bear the statutory marking, Promega contends first, that § 287 does not apply because Promega was not the patentee of the White Patent, but rather an exclusive sublicensee and second, that Lifecodes received sufficient notice of its infringement in December 1990.

Promega's first argument cannot stand in view of [*25] the language of [HN2] the statute that imposes a duty to mark patented items not only on patentees, but also on "persons making, offering for sale, or selling within the United States any patented article for or under them . . . ." *35 U.S.C. § 287.* Further, the Federal Circuit has stated that [HN3] licensees must comply with the marking provisions of § 287. See *Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1111 (1996).*

Promega's second argument, that Lifecodes received sufficient notice before the filing of the first lawsuit, is based on the December 16, 1990 letter, sent by Promega, to numerous individuals and entities. One copy of the letter was sent to Dr. Jacob Victor. [HN4] To constitute notice, as required by § 287, the letter would have to notify the infringer of the infringement. However, examination of the letter makes clear that the letter was not sufficient to give the notice to Lifecodes of possible infringement. The purpose of the letter was not to warn of potential infringement of the White Patent, rather, as stated in the letter: "The purpose of this letter is to provide you with information regarding the patent and license situation for the probes [*26] we have commercialized . . . . Most of you have already signed a use-fee agreement and my intention is to provide you solid information on the patent issue." (Letter from Majer to Victor of 12/16/90, Pl.'s Ex. 126.)

In *Amsted Indus., Inc. v. Buckeye Steel Castings Co., 24 F.3d 178 (Fed. Cir. 1994),* the plaintiff argued that a letter it had sent to a number of companies, including the defendant, gave the defendant proper notice under § 287. The court disagreed, noting that although the letter warned recipients that "you should acquaint yourself with the ['269 patent] and refrain from supplying or offering to supply component parts which would infringe or contribute to the infringement of the patent," it failed to make an "affirmative communication of a specific charge of infringement by a specific accused product or device." *Id. at 186-87.* Likewise, in this case, the December 16th letter makes no charge of infringement against any of the numerous companies to whom it was sent and there is no reference whatsoever of Lifecodes or Lifecodes' probes.

Promega points out that shortly after the letter was sent to Dr. Victor, Lifecodes forwarded it to [*27] its patent attorneys, Pennie & Edwards. Promega claims that this fact is sufficient to establish an inference that Lifecodes understood the December 16th letter to be an assertion of Promega's rights in the White Patent and therefore, the December 16th letter satisfied § 287. However, the Federal Circuit has emphasized that [HN5] to meet the notice requirements of § 287, affirmative notice must be given of the specific infringement and, "it is irrelevant . . . whether the defendant knew of the patent or knew of his own infringement." *Id. at 187.* Therefore, even though Lifecodes might well have been aware that it was infringing the White Patent when it received the December 16th letter, the letter did not give actual notice within the meaning of § 287, and Promega may recover damages only after July 9, 1991, when the University and Genmark filed suit against Lifecodes.

B. The Relation Back Argument

Lifecodes maintains that because Promega, in its original complaint, filed in February 1993, sought damages only for the period between October 1990 and December 1991, and expressly excluded the period after December 1991, Promega's amended complaint cannot relate [*28] back to the date of the original pleading and Promega's damages must be limited accordingly. The court finds little merit in this argument. *Rule 15 of the Federal Rules of Civil Procedure,* which is to be liberally construed by courts, governs this question. See *Brandon v. Holt, 469 U.S. 464, 471 n.19, 83 L. Ed. 2d 878, 105 S. Ct. 873 (1985).* [HN6] Rule 15 states that "an amendment of a pleading relates back to the date of the original pleading when . . . the claim or defense asserted in the amended pleading arose out of the conduct, transaction, or occurrence set forth or attempted to be set forth in the original pleading . . . ." Promega's claims against defendants in the amended complaint arose out of

the same conduct set forth in the original complaint. Accordingly, Promega's damages are not limited to the period between October 1990 and December 1991.

C. A Reasonable Royalty

Promega is entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by [Lifecodes] . . . ." *35 U.S.C. § 284.* Promega claims that a reasonable royalty would be 40% to 49%, [*29] n7 and should be paid not only on Lifecodes' infringing sales of the White Probes, but also on the sale of all products sold by Lifecodes if the sale was made at the same time as the sale of a White Probe and was billed on the same invoice (although separately listed and priced) as the sale of the White Probe. Lifecodes does not dispute that Promega is entitled to a reasonable royalty on Lifecodes' infringing sales of White Probes; however, Lifecodes argues that a reasonable royalty rate would be 10% and would be limited to Lifecodes' infringing sales of White Probes, cocktails and kits.

n7 Promega's damage expert, R. Todd Nielson, based his calculations of Promega's damages on a 30% royalty rate. (Second Restated Expert Report of R. Todd Nielson, Pl.'s Ex. 122.) In response to an interrogatory question from Lifecodes asking how Mr. Nielson arrived at the 30% rate, Promega responded that the rate was based on the 1990 Agreement but that "[a] lower rate of 12% was considered from the arbitrator's Final Award of March 7, 1996, but was rejected because the rate for infringement of the rights in an exclusive license is more appropriate than the rate in a non-exclusive license." (Resp. to Interrog. 3, Def.'s Ex. DM.) Shortly before trial, Promega apparently changed its damage theory and sought a higher royalty rate.

[*30]

1. The Royalty Base: Convoyed Sales

[HN7] Convoyed sales occur when unpatented goods are sold simultaneously with a patented device. See *Carborundum v. Molten Metal Equip. Innovations, Inc., 72 F.3d 872, 881 n.8 (Fed. Cir. 1995).* The Federal Circuit in *Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538* (Fed. Cir.) (en banc), [HN8] applying the "entire market rule" held that to recover damages on unpatented convoyed goods,

> the unpatented components must function together with the patented components in some manner so as to produce a desired end product or result. All the components together must be analogous to components of a single assembly or be parts of a complete machine, or they must constitute a functional unit.

Id. at 1550. The Rite-Hite court denied the patentee recovery for sales of the unpatented dock levelers, a device for bridging vehicle and dock edges. Although the dock levelers were used with the patented vehicle restraints, devices used to secure trucks to loading docks, the court noted that the two pieces of equipment "did not function together to achieve one result and each could effectively have been [*31] used independently of each other." *Id. at 1551.*

With this guidance in mind, the court concludes that Promega has failed to meet its burden of showing that Lifecodes' sales of unpatented products (mainly reagents) to its customers resulted from its sales to these customers of White Probes. Although the evidence established that the unpatented items could all be used with White Probes, and were either actual components of the kits or their functional equivalents, the evidence also established that the unpatented products could, and often were, used independently from the White Probes. That is, reagents that were sold on the same invoices as White Probes, were used with DNA probes other than the White Probes. Dr. Victor testified that although "certain probes can be used with certain restriction enzymes better than others, . . . overall virtually every probe could be used with every reagent." (Tr. of April 29, 1999, at 101.) Dr. Victor testified that beginning in 1991, as users of genetic identity products became more sophisticated, they shopped for reagents among the various suppliers, choosing the lower-priced reagents. Dr. Victor had reviewed certain Promega invoices, [*32] and found that many customers who were both Promega customers and Lifecodes customers, bought White Probes from Promega and reagents from Lifecodes. This evidence indicates that purchases of unpatented products from Lifecodes were not driven by purchases of White Probes

Accordingly, the royalty base will be limited to sales of the White Probes, cocktails, and kits.

2. The Royalty Rate

To determine the royalty rate due Promega, the court must now engage in what the Federal Circuit has described as "a difficult judicial chore, seeming often to involve more the talents of a conjurer than those of a judge. [HN9] Lacking adequate evidence of an

established royalty, the court [is] left with the judge-created methodology described as 'hypothetical negotiations between willing licensor and willing licensee.'" *Fromson v. Western Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988).* The court can consider a variety of factors [HN10] in determining what rate would have been agreed upon in this hypothetical negotiation. In *Georgia-Pacific Corp. v. United States Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970),* modified and affd, *446 F.2d 295 (2d Cir. 1971),* [*33] the court gave a list "of [fifteen] evidentiary facts relevant, in general, to the determination of the amount of a reasonable royalty for a patent license . . ." *318 F. Supp. at 1120.*

> These factors generally fall into two groups. One group relates to the specific and general market conditions in the pertinent industry. These include (i) prior and existing licenses under the patent, (ii) industry custom and licenses on comparable patents, and (iii) the patent owner's licensing policy and the relation between the parties. [HN11] The other group of factors relates to the anticipated profitability of the product or process made, used, or sold by the infringer and covered by the patent. These include (iv) infringer's anticipated profits, (v) comparative utility and noninfringing alternatives, (vi) collateral benefits and convoyed sales, (vii) improvements, small parts and apportionment, (viii) state of development and commercial success, and (ix) duration of the patent. The second group of factors in a sense sets the range of feasible rates since a willing patent owner would demand a greater than minimum rate for a profitable invention and a willing user would concede no more than [*34] the expected amount of profit (adjusted for the uncertainty as to its realization). The first group of factors points to the rate that the parties would have adopted within that range.

7 Donald S. Chisum, Chisum on Patents 20-170 -71 (1998).

The court has considered all of the fifteen Georgia-Pacific factors and will analyze all those that are applicable here, by the grouping suggested by Chisum:

a. The specific and general market conditions in the pertinent industry

The relationship between Promega and Lifecodes deviates from the usual willing licensor-willing licensee situation. By virtue of the 1990 Agreement, the injured party, Promega, is the licensee of Lifecodes, the infringer. n8 This unique relationship would certainly have an impact on the hypothetical negotiations. However, the court concludes that Promega's obligation to pay Lifecodes a 30% royalty would be eliminated during the negotiations. Dr. Dimond testified that the 1990 Agreement would have to be "cleared out" by the new hypothetical license between Promega and Lifecodes. (See Tr. of April 27, 1999, at 174-75 ("I would not expect to have been paying for example a 30% royalty back to Lifecodes"). [*35]) Still, the duration of any license granted to Lifecodes would undoubtedly be dictated by the 1990 Agreement. The negotiations would occur in October, 1990, when the White Patent issued. Yet in 1995, before the expiration of the White Patent, Promega's rights under the 1990 Agreement would end, and all the rights under the patent would revert to Lifecodes.

> n8 Although Lifecodes did not actually assume Genmark's role under the 1990 Agreement until December 9, 1991, more than a year after the hypothetical negotiation, courts are given some leeway in relying on events that occur later. See 7 Chisum, supra, at 20-161-62. And as Dr. Dimond testified when he explained that he had analyzed the hypothetical negotiation as if Lifecodes had already stepped into Genmark's shoes, "otherwise you end up with a three-party negotiation and it's just more complicated to think about." (Tr. of April 27, 1999, at 158.)

The court must also take into account the vigorous competition existing between Lifecodes and Promega. [*36] The two companies competed directly for the same sales and had the same customers. As Dr. Dimond explained:

> Clearly both companies are in the market. Clearly both companies have the ability to reach all segments of the market. It would have been my belief going into the hypothetical negotiation that in fact we were in contact with the same set of customers. I don't believe there's any customers that Promega had that Lifecodes didn't know about or probably wasn't sending market literature to and vice versa would also be true.

(Tr. of April 27, 1999, at 159-60.)

Both companies not only competed in selling products to the same customers, both manufactured the White probes in sufficient quantity to satisfy the entire market. Thus, it was Dr. Dimond's belief that he would enter the hypothetical negotiations with the assumption that any sales that Lifecodes would make in the market would be at Promega's expense in the market. n9

n9 The Arbitrator reached a different conclusion in the Second Arbitration.

[*37]

Moreover, Dr. Dimond testified that by 1990, Promega had the general policy of not granting licenses for any of the patents it held. At first glance, Promega's willingness to negotiate with Lifecodes in 1991 in an attempt to settle the first lawsuit, casts some doubts on Dr. Dimond's assertion. However, closer examination of those 1991 negotiations shows that the situation was unique, and that the offer by Promega to grant Lifecodes a sublicense was prompted by a desire to settle the lawsuit. The 1991 negotiations were not an indication of Promega's general licensing policy.

Importantly, there is no evidence that Promega has licensed the White Patent to a direct competitor. The two limited field licenses granted by Promega, one to Cetus and one to Applied Biosystems, differed significantly from any license Promega would have granted Lifecodes. Cetus and Applied Biosystems were not direct competitors of Promega, and the licenses they received were for limited uses, in fields in which Promega was not competing.

Given the fact that Promega and Lifecodes were direct competitors, both able to fill the same market for White Probes, and in view of Promega's general policy against granting [*38] licenses for the patents it held, the court concludes that the hypothetical license would be a coexclusive license, that is, with only Promega and Lifecodes having the right to manufacture and sell the White Probes. These factors also weigh in favor of a higher royalty rate. See *Super Sack Mfg. Co. v. Bulk-Pack, Inc., 1992 U.S. Dist. LEXIS 22500, 1992 WL 96863 (E.D. Tex. 1992)* ("Given the competitive commercial relationship between [the parties] . . . [the patentee] would seek a higher reasonable royalty if it elected to license the patent to another manufacturer.").

Although the Cetus and Applied Biosystems licenses are of little probative value here; the earlier licenses of the White Technology granted by the University and by Genmark do shed some light on the hypothetical negotiations: "Courts [HN12] give considerable weight to actual prior and existing licenses granted under the patent in suit even though such licenses fail to meet the standards for an established royalty." 7 Chisum, supra at 20-171.

. The first such license is the license given to Genmark (Westgene) by the University in May 1988. The royalty rate was 3 to 4%, to be doubled to 6% when a patent issued. This agreement offers [*39] little guidance primarily because it was negotiated before the patent issued and before the parties knew what commercial success, if any, the White Probes would enjoy.

The 1989 and 1990 Agreements between Genmark and Promega and the sublicense that resulted from the Second Arbitration between Promega and Lifecodes are of more significance here despite the apparent differences between them and the hypothetical license. The 1989 Agreement reflected Genmark's intention at the time to manufacture the probes itself; Promega would be the exclusive sales agent for the probes. Importantly, the royalty rate was 18% and would decrease to 9% if Genmark changed the Promega's agency to a nonexelusive agency. The royalty rate reached during the hypothetical negotiations would be higher than the 18% rate because it would be for a coexclusive license, not for an exclusive sales agency with the possibility of being converted to a nonexelusive agency. Further, when the 1989 Agreement was struck, there was virtually no commercial market for DNA probes. By 1990, the time of the hypothetical negotiations, the parties were well aware that a profitable market existed for the probes.

Under the 1990 Agreement, [*40] Promega paid a 30% royalty. Promega's damage expert, Todd Nielsen, in his written report, concluded that this was the proper rate for the hypothetical Promega/Lifecodes license. Dr. Dimond was emphatic that Promega would never consider a royalty rate of less than 30% because Promega would be giving up its exclusive rights to the White Probes: "I don't know of any rationale for why I would pay them less than what I have to pay under the 1990 Agreement." (Tr. of April 27, 1999, at 175.) However, the hypothetical license would not confer on Lifecodes the same exclusive rights given to Promega by the 1990 Agreement: Promega and Lifecodes would be sharing the rights. Lifecodes might be less willing to pay a 30% royalty rate for a coexclusive license than Promega was willing to pay for its exclusive license. In fact, as demonstrated by the statements by Promega's Thomas Mozer, in his February 8, 1996 letter to Walter Fredericks, some discount must be made for the fact that Lifecodes would not receive an exclusive license. (See Def.'s.' Ex. BH.)

b. The profitability of the White Probes

Much of Lifecodes' proof at trial was directed to demonstrating that, at the time of the hypothetical [*41] negotiations, Lifecodes was well-established in the human identity industry, independent of the White Patents, and that certain of its own probes, notably the V-1, enjoyed considerable success. Although the court accepts these facts, the evidence made clear that there was no acceptable substitute for YNH24; it was used in almost all human identity tests. Both Promega and Lifecodes had made their entrance into the human identity market primarily through the strength of YNH24. By the time of the hypothetical negotiations, both Lifecodes and Promega knew that the FBI would use the White Probes in their testing. In short, the White Probes, in particular YNH24, was a dominant probe in the human identity business and was clearly a commercial success. Lifecodes would be far more likely to pay a higher royalty rate for the White Probes because of the lack of an acceptable substitute for YNH24 and because of the success of the White Probes.

Lifecodes would also be willing to pay a higher royalty rate because, at the time of the hypothetical negotiations, Lifecodes was firmly committed to manufacturing, using, and selling the White Probes. Lifecodes, in fact, had incorporated the White Probes [*42] into its identity data base. Even though once the 1990 Agreement ended, Lifecodes would have the legal right to the White Probes, Lifecodes did not and, perhaps could not wait for July 1995, but persisted in using the White Probes, even when it knew it had no right to do so.

Dr. Dimond testified that in conducting the hypothetical negotiations, he would have focused on "the strengths and weaknesses of each party and tried to determine what is a fair division of profits." (Tr. of April 27, 1999, at 159.) Dr. Dimond assumed that because Promega's profit margin on the sale of White probes was 98%, Lifecodes' profit margin was also 98%. He also assumed that, but for Lifecodes' infringement, Promega would have made every sale of a White Probe that Lifecodes made. According to Dr. Dimond, Promega would have had to receive a royalty rate of 40 to 49% (depending on whether unpatented products were included in the royalty base), to recoup 50% of Promega's lost profits.

Not surprisingly, Lifecodes does not agree with Dr. Dimond's assessment. Among other disagreements Lifecodes has with this analysis is its contention that because one vial of White Probes sold by Lifecodes did not equal one [*43] vial of White Probes sold by Promega, a reasonable royalty rate would have to be adjusted to account for that difference. n10 Walter Fredericks testified that a reasonable royalty rate would have to reflect this difference in the concentration of a Lifecodes' vial and a Promega vial: "I would accept a 30% royalty as being the basis of a cross-license or sublicense. However, as was established in the arbitration, one has to normalize the difference in the product that Lifecodes sells versus the product that Promega sells." (Tr. of April 30, 1999, at 24.) According to Lifecodes, because Lifecodes made seven times the profit per vial that Promega made, even had Promega made all of Lifecodes sales, it would only have made 1/7 of Lifecodes' profit. Therefore, the theory goes, a reasonable royalty rate would be 4%. However, even Lifecodes appeared to not fully accept its own theory, because it later suggested that 10%, not 4% was a reasonable royalty rate.

n10 Lifecodes sold a vial of White Probes for $ 350; the Lifecodes vial had sufficient probe to test 50 samples. The Promega vial sold for $ 400; 400 hundred samples could be tested from one Promega vial. According to Lifecodes, customers were willing to pay this increased price because of the "value added" features, such as the radioactive labeling.

[*44]

Weighing all of the above factors, the court concludes that Lifecodes and Promega would have agreed upon a reasonable royalty rate of 22%. This is less than the 30% royalty rate under the 1990 Agreement, primarily because the sublicense to Lifecodes would be coexclusive, not exclusive. Also, the court gives some weight, although not a great deal, to the fact that the concentrations of the Promega and the Lifecodes vials differed. The court rejects Lifecodes' argument that a reasonable royalty rate would be 10% because such a rate does not take into account the considerable success and value of the White Patent, the competitive relationship between Lifecodes and Promega, and Promega's general policy of not licensing the White Patent.

D. Willfulness

Promega contends that Lifecodes' infringement was willful and justifies an award of [HN13] treble damages under *35 U.S.C. § 284*. The enhanced damages that Promega seeks are not compensatory but punitive. See *Beatrice Foods Co. v. New England Printing & Lith. Co., 923 F.2d 1576, 1580 (Fed. Cir. 1991)*. Promega bears the burden of proving that Lifecodes' infringement was willful by clear and convincing [*45] evidence for "the boundary between unintentional and culpable acts is not always bright." *Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1221 (Fed. Cir. 1995)*. Lifecodes denies that its infringement was willful, contending that

it acted in good faith and in reliance on the advice of its counsel.

The Federal Circuit explained that [HN14] the determination of whether an infringer acted willfully depends primarily on

> whether the infringer, acting in good faith and upon due inquiry, had sound reasons to believe that it had the right to act in the manner that was found to be infringing. The law of willful infringement does not search for minimally tolerable behavior, but requires prudent, and ethical, legal and commercial actions. Thus precedent displays the consistent theme of whether a prudent person would have had sound reason to believe that the patent was not infringed or was invalid or unenforceable, and would be so held if litigated.

SRI Int'l, Inc. v. Advanced Tech. Labs, Inc., 127 F.3d 1462, 1464-65 (Fed. Cir. 1997).

Lifecodes argues that its actions must be divided into three separate periods: (1) from the issuance of the White [*46] Patent in October 1990 to December 1991, when the first lawsuit settled and Lifecodes assumed Genmarks' position under the 1990 Agreement; (2) from December 1991 to November 1992, when the Arbitrator made his first award; and (3) from November 1992 until July 1995 when the 1990 Agreement ended. The court disagrees with Lifecodes' attempt to segregate and compartmentalize its actions. To do so would be contrary to the instruction of the Federal Circuit that [HN15] a determination of whether an infringer acted willfully must be based on "the totality of the circumstances." *Id. at 1465.*

Bearing these standards in mind, the court now turns to an examination of Lifecodes' actions throughout this controversy.

1. Lifecodes' response to court orders

Lifecodes argues that it had a good faith belief, until the Arbitrator found otherwise, that the 1990 Agreement gave Promega only an agency relationship, which did not survive the December 1991 settlement agreement between the University, Genmark, and Lifecodes. Lifecodes points to the August 1992 document from its attorney, outlining this theory, as evidence of its good faith belief. However, Lifecodes' argument is undermined [*47] by certain evidence.

First, Promega sent a form letter to Lifecodes on December 16, 1990, stating that the White Patent had issued and that Genmark and Promega held exclusive licenses in the technology of the patent. On July 9, 1991, a lawsuit was filed against Lifecodes, claiming that the White Probes infringed the claims of the White Patent. In August 1991, Genmark informed Lifecodes that Genmark could not grant Lifecodes a license to sell the probes without the permission of Promega. In an attempt to settle the lawsuit, in September 1991 Promega informed Lifecodes of the terms under which Promega would be willing to grant Lifecodes a sublicense. Lifecodes' attorney, in his notes taken in November 1991, referred to Promega as Genmark's "excl. licensee," an abbreviation that the court found meant "exclusive licensee." Therefore, early on Lifecodes knew not only that there was a substantial likelihood it was infringing the White Patent, but that, by so doing, it was violating Promega's rights under the White Patent. Yet, Lifecodes continued manufacturing and selling the patented product.

In June 1992, Promega instituted an arbitration proceeding against Lifecodes, regarding Lifecodes' [*48] manufacture and sales of DNA probes covered by the White Technology. The August 1992 document written by Lifecodes' attorney, and which Lifecodes now claims evidences its good faith belief that Promega was a only sales agent, is a litigation document, drafted to outline the positions that Lifecodes was preparing to advance during the arbitration. The arbitrator held that Promega had a limited exclusive worldwide sublicense to manufacture, sell and distribute the probes. Despite the arbitrator's holding, Lifecodes refused to halt its violation of the 1990 Agreement and its corresponding infringement of the White Patent.

Lifecodes dismisses its continued breach of the 1990 Agreement as justified by the Arbitrator's refusal to grant Promega's request for specific performance. According to Lifecodes this evidences Lifecodes good faith in continuing to manufacture and sell White probes. Lifecodes' argument is not convincing. Although the Arbitrator did state that "the balancing of the interests of the parties and the interest of the public weigh against requiring Lifecodes to cease further sales of the probes" (Pl.'s Ex. 28 at P 7) (a finding that the Honorable David K. Winder later concluded [*49] was dicta), this statement must be viewed in light of the Arbitrator's earlier holding that Lifecodes' sales and manufacture of the White Probes were in breach of the 1990 Agreement for which Lifecodes was liable in damages to Promega. If Lifecodes truly believed that it had a duty to its customers to provide White Probes, even though each sale would constitute a breach of the 1990 Agreement, Lifecodes could have purchased White Probes from Promega, labeled them, and sold them to its customers. Moreover, it would have been far easier and wiser for

Lifecodes to simply cease its sales of the White Probes; Lifecodes' customers could then have purchased White Probes directly from Promega and any extra services on the open market (an option Judge Winder found available to Lifecodes' customers when he later rejected the same argument). Lifecodes, however, disregarded that alternative and deliberately and intentionally chose to continue selling White Probes with full knowledge that each sale exposed it to more damages to Promega.

Due to Lifecodes continued infringement of the patent, in February 1993, Promega filed this lawsuit against Lifecodes. Promega was granted a preliminary injunction, [*50] enjoining Lifecodes from continued infringement of the White Patent. However, Lifecodes did not promptly stop its infringing actions. When Judge Winder delayed the effective date of the injunction for thirty days, Lifecodes took full advantage of that period and continued to sell and ship White Probes (although in lesser quantities than before) until the deadline was reached.

In sum, even when it was made clear to Lifecodes through legal processes that its actions were contrary to law, Lifecodes exploited every avenue left open to it to continue its infringing activities. Throughout the litigation, Lifecodes has not asserted that it wasn't infringing a valid patent, only whether Promega had an interest in the patent. And while Lifecodes' continued sales after the First Award and during the thirty-day grace period following the grant of preliminary injunction were technically in compliance with the courts' orders, and when taken separately might not constitute willfulness, when they are viewed together and in connection with the totality of Lifecodes' actions, indicate that Lifecodes had a tenacious determination to continue its infringement of the White Patents despite the risk of [*51] liability in damages.

2. Lifecodes' reliance on advice of counsel

Lifecodes has asserted that it relied on competent legal advice throughout this dispute and that therefore, its infringement was not willful. [HN16] While reliance on the advice of counsel can be a meritorious defense to a claim of willfulness, not all legal advice in all situations will suffice.

> When this defense is raised the court may consider the nature of the advice, thoroughness and competence of the legal opinion presented, and its objectivity. The court will determine whether the advice of noninfringement . . . could have reasonably been relied on, and whether, on the totality of the circumstances, exculpatory factors avert a finding of willful infringement. The totality of the circumstances may include not only such aspects as the closeness or complexity of the legal and factual questions presented, but also commercial factors that may have affected the infringer's actions.

SRI Int'l, 127 F.3d at 1465.

In *SRI International, Inc. v. Advanced Technology Laboratories, Inc., 127 F.3d 1462 (Fed. Cir. 1997),* the Federal Circuit upheld the district court's finding [*52] that the infringer had acted willfully despite the infringer's claimed reliance on the opinions of three attorneys. The Federal Circuit explained:

> [HN17] To serve as exculpatory legal advice the opinion of counsel is viewed objectively, to determine whether it was obtained in a timely manner, whether counsel analyzed the relevant facts and explained the conclusions in light of the applicable law, and whether the opinion warranted a reasonable degree of certainty that the infringer had the legal right to conduct the infringing activity.

Id. at 1467.

Lifecodes points to a number of communications with its attorneys in support of its defense, beginning with the August 1988 Misrock opinion. The court has previously described the weaknesses in the Misrock opinion, that is, that it did not treat any patent issues and was based on materially incorrect information, provided by Lifecodes. In view of these clear deficiencies, Lifecodes could not reasonably nor justifiably have relied on the Misrock letter as competent legal advice.

Nor could Lifecodes have reasonably relied on the 1991 oral "opinion" given by Sam Abrams, primarily because Abrams gave no opinion. Similarly, [*53] Lifecodes could not have relied on the September 23, 1991 Saliwanchik Letter. Saliwanchik did not give an opinion that Lifecodes was not infringing the White Patent and Lifecodes would not have been justified in relying on this letter to continue its infringement.

When the court considers the communications Lifecodes contends it relied on, it is clear that they do not warrant, to any degree of certainty, Lifecodes' belief that it had the legal right to conduct its infringing activity.